

## TECHNICAL INFORMATION

### KB-6150

KB-6150 is glass fabric based epoxy resin copper clad laminate, which could be processed into single/double sided printed circuit board or core for multilayer printed circuit board. It has good performances in flame resistance and dimensional stability.

Type	Grade	Construction
KB-6150	ANSI (NEMA) FR-4	Glass fabric, Copper foil, Epoxy resin

#### *Features*

- **Excellent dimensional stability**  
Small dimension and thickness changes after heated could warrant precise positioning of circuits and improve the reliability of PTH.
- **Excellent heat and moisture resistance**  
Ion-migration is effectively minimized in hot and humid environment avoiding the occurrence of measling.
- **Excellent thickness uniformity**  
Excellent thickness uniformity improves surface mounting precision which is propitious especially to the thickness control in multilayer PCB.

#### *Standard Configuration*

- **Thickness** : 0.1mm – 3.2mm (IPC-4101 Class B)
- **Copper Cladding** : 18 $\mu$ m, 35 $\mu$ m , 70 $\mu$ m
- **Regular Size (mm)** : 914 x 1220, 1020 x 1220, 1041 x 1245, 1067 x 1220
- **Other Size** : As specified by customers

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#### General Properties

Properties	Unit	Test Condition	IPC-4101 Testing Method	IPC-4101 Requirement	Typical Value
Flexural Strength	Kg/m <sup>2</sup>	Lengthwise Crosswise	2.4.4	above 4.23 x 10 <sup>7</sup> above 3.52 x 10 <sup>7</sup>	5.58 x 10 <sup>7</sup> 4.54 x 10 <sup>7</sup>
Peel Strength (1 oz)	Kg/cm	A	2.4.8	above 1.43	2.0
Glass Transition (Tg)	°C	E2 / 105 DSC	2.4.25	above 130	135
Flammability	Sec	E24 / 23	2.3.10	Average Burn <= 5 Max Burn <= 10	1.6 7
Thermal Stress	Sec	Float 288 °C	2.4.13.1	Above 20	above 180
Surface Resistance	MΩ	C96/35/90	2.5.17.1	Above 1.0 x 10 <sup>4</sup>	1.0 x 10 <sup>7</sup>
Volume Resistivity	MΩ-cm	C96/35/90	2.5.17.1	Above 1.0 x 10 <sup>6</sup>	1.0 x 10 <sup>9</sup>
Permittivity	—	Etched/@1MHZ	2.5.5.3	Less than 5.4	4.6
Loss Tangent	—	Etched/@1MHZ	2.5.5.3	Less than 0.035	0.02
Moisture Absorption	%	D24/23	2.6.2.1	Less than 0.5	0.1

Remarks: Typical values for reference only.